ABSTRACT
Title:
One-sided strain as a risk factor of muscles imbalances in an ice-hockey training of children.
Objectives:
The objectives of this diploma thesis is a contribution to the solution of one-sided strain problems of older primary-school-aged juniors and its influence on ontogenesis of somatic parameters of children that train ice hockey.
Methods:
The thesis considered theoretical ways that described a long term influence of ice hockey training on ontogenesis of players, related risks of muscles imbalances origin and possibilities how to compensate these muscles imbalances. A sample of 200 probands specialised in ice hockey training was selected for testing and a control sample of 200 probands without any sport specialisation composed of 50 probands of a birth year 2005, 2004, 2003, 2002 respectively - primary-school-aged juniors. Six different exercises were selected for testing according to the inquiry methodology of Dostálová (2006) and Horkel (2001). Four out of those exercises tested muscles shortening and two exercises tested muscles debilitation.
Results:
The measured data were statistically assessed by two-sample t-test with equal variance. A long term influence of ice hockey training was confirmed. A significant muscle shortening of musculus iliopsoas of right lower extremity was statistically proved: the testing criterion amounted to tcal = 2.823 and it was higher than a tabular value ttab = 1.984. A muscles debilitation caused by an ice hockey specialisation was not proved. A significant statistical variance was also proved in a shortening of a knee joint flexor, but without an impact on this research assessment as the shortening was proved in a control sample without any sport specialisation.